Task Assignment 99-001-00
January 2003

MANAGEMENT
GSFC ATR - Dr. J. Green
Raytheon ITSS Task Leader - L. Mayo
Raytheon ITSS Group Manager - L. Mayo

TASK OBJECTIVE: The non-personal services required under this task include performing all necessary functions to manage Raytheon ITSS contract staff supporting the Space Science Data Operations Office (SSDOO). The Raytheon ITSS management team will meet with the SSDOO management team to discuss significant events and contract highlights to be presented to upper management and Headquarters, and current contract issues and concerns.

SIGNIFICANT EVENTS:

- Staff held weekly senior staff meetings.
- Staff coordinated Science Data Centers Symposium planning.
- Staff gave PEB presentation to SSDOO management.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 08:58:25 EST [NAJ]*

Task Assignment 99-003-00
January 2003

ASTROPHYSICS MISSION SUPPORT SERVICES
GSFC ATR - Dr. N. Gehrels
Raytheon ITSS Task Leader - Dr. J. F. Cooper
Raytheon ITSS Group Manager -

TASK OBJECTIVE: This task provides support and consultation services for the Compton Gamma Ray Observatory (CGRO) project scientist in areas of data management, analysis, and archiving for CGRP and for the HIC experiment on the Galileo spacecraft. This support includes attending GRO Science Working Group meetings, aiding target-of-opportunity decisions, monitoring the health of the spacecraft, and presenting GRO papers at scientific meetings. In addition, this task will provide consultation on data products from the HIC.

SIGNIFICANT EVENTS:

1. The Task Leader implemented a new interplanetary irradiation model for the outer solar system by combining existing Voyager flux spectra for protons above 0.1 MeV at 40 AU. 85 AU (assumed termination shock location), and the Very Local Interstellar Medium with eV - keV plasma proton distribitions from the model of J. R. Richardson and C. Wang (MIT). A paper is in preparation.

2. I. N. Reid (STScI/JHU) invited the Task Leader to be a collaborator with M. McGrath (STScI/JHU) and R. E. Johnson (UVA) on investigations of planetary magnetospheres for Reid's proposal "Pathways to Habitable Worlds: The Astrophysics of Life" to the NASA Astrobiology Institute. Written materials on the Space Physics of Life sub-theme were provided for inclusion in the proposal.

3. The Task Leader attended an initial briefing at GSFC on a future mission to Jupiter with nuclear power as part of NASA's Prometheus program to provide increased power and maneuverability for outer planets missions. Multiple entry/exit for orbits around Galilean moons would allow gravity, radar, amd magnetic sounding for sub-surface oceans, while microwave power transmission to surface probes could enable long term seismic and biochemical studies.

4. Task staff reviewed EGRET data from viewing periods QVP0002-0007, QVP0010-0092, QVP0100-0440, QVP2010-2320, QVP3010-3070, QVP3100-3195, and QVP3200-3290 for EGRET scientists D. Thompson and D. Bertsch (Code 661).

UPCOMING MILESTONES/EVENTS:

1. A poster presentation on "The Space Physics of Life" will be given at the 2002 General Meeting of the NASA Astrobiology Institute at Arizona State University during February 10-12, 2003.

2. The Task Leader will give an invited talk on heliospheric weathering of comets at the "First Decadal Review of the Edgeworth-Kuiper-Belt - Towards New Frontiers" workshop in Antofagasta, Chile during March 11-14, 2003.

PROBLEMS OR AREAS OF CONCERN: Task funding for EGRET support activities after March 2003 remains uncertain.

RELATIONS TO OTHER TASKS: Work on this task is being supplemented by support from the SSDOO project and one active Jovian System Data Analysis Program contract with Raytheon ITSS. Further supplementary funding has now begun for work supported by the NASA Planetary Atmospheres Program on radiolytic chemistry modeling for Europa's atmosphere and surface.

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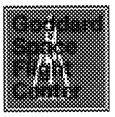
 NASA home page  GSFC home page  GSFC organizational page

Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 09:06:42 EST [NAJ]*

Task Assignment 99-101-00
January 2003

AMASE-MOCHA-CONCAT DEVELOPMENT
GSFC ATR - Dr. C. Cheung
Raytheon ITSS Task Leader - E. Shaya
Raytheon ITSS Group Manager -

TASK OBJECTIVE: This task provides support for the development of the object -oriented data base multispectral astrophysics data catalog, AMASE (Astrophysics Multimission Archive Search Engine) as an interface to NASA's astrophysics data holdings. This effort is a collaborative one with the University of Maryland (UMD) Computer Science Department, and frequent interactions with UMD counterparts are expected. The general goal for this performance period is to develop the AMASE prototype into an astronomical search and discovery engine by expanding the data contents and augmenting the search capabilities. Work includes incorporating astrophysics data from other wavelength bands to complete the electromagnetic spectrum and developing procedures to access remote relational data bases.

SIGNIFICANT EVENTS:

a. DSA:
   1. Staff worked on XML telemetry language for OMG RFP. Draft specification was submitted to OMG and is awaiting decision by OMG AB committee. However, work continues on improvements and making it useful for GMSEC.
   2. Staff created Web site for telemetry documentation that links to the CVS repository.
   3. Staff is writing white paper summarizing this year's work.

b. ANTS:
   1. Staff attended design meetings for ANTS software.
   2. Staff discussed genetic programming with visitor Dr. Luis Rocha from Los Alamos.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 09:13:12 EST [NAJ]*

Task Assignment 99-110-00
January 2003

AUTONOMOUS TECHNOLOGY
GSFC ATR - Dr. M. E. Van Steenberg
Raytheon ITSS Task Leader - R. Dunlap
Raytheon ITSS Group Manager

TASK OBJECTIVE: The objective of this task is to support the development of a simulation environment that supports autonomous distributed spacecraft control and test science collection techniques using artificial intelligence (AI) technologies. This work is in collaboration with the GSFC's Guidance, Navigation and Control Center and JPL's Automation and Control group. The contractor shall support the following activities and contribute to reports and white papers as appropriate: (a) evaluate Science Quick-Look Analysis Tools (e.g., HEASARC) for use as on-board analysis tools, (b) define Typical Science-Driven Maneuver Automation Requirements, (c) define Typical Science Automation Requirements, (d) define Basic System Architecture, and (e) develop rapidly a prototype to demonstrate key capabilities.

SIGNIFICANT EVENTS: No work was performed on this task during the reporting period.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Thursday, 06-Feb-2003 15:57:25 EST [NAJ]*

Task Assignment 99-113-00
January 2003

GLAST
GSFC ATR - R. Fink
Raytheon ITSS Task Leader - J. Palencia
Raytheon ITSS Group Manager -

TASK OBJECTIVE: GLAST is a multipartner gamma-ray survey mission with a GO observation component. The ADF will provide a prototype public archive design using Beowulf and other related technology. The prototype will implement the archive design using the Compton Gamma Ray Observatory EGRET data set. The contractor shall provide personnel to support the following tasks: (1) systems administration support of the Beowulf cluster and (2) programming support as requested for implementing the archive prototype.

SIGNIFICANT EVENTS:

- Staff implemented OpenPBS and Grid Engine Enterprise Edition on HPC's Beowulf Cluster, THUNDERHEAD.
- Staff successfully completed implementation of OpenPBS' requested queues on the BLISS Beowulf Cluster.
- Staff provided system administration support for HPC's Beowulf Clusters (MEDUSA & ORKA).
- Staff provided system administration support for MEDUSA Workstations (porpoise, corona, megha, bohr, frio).
- Staff provided system administration support for the BLISS Beowulf Cluster.

UPCOMING MILESTONES/EVENTS:

- Staff will create a user graphical GUI for LACE for HPC's Beowulf Cluster, THUNDERHEAD.
- Staff continues thesis work.

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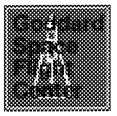
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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 09:14:08 EST [NAJ]*

Task Assignment 99-201-00
January 2003

IMAGE
GSFC ATR - R. Burley
Raytheon ITSS Task Leader - C. Klipsch
Raytheon ITSS Group Manager -

TASK OBJECTIVE: The objectives of the IMAGE Mission Data System task are to develop, test, and maintain the IMAGE Web data access and display system, the IMAGE data processing system, and the IMAGE data distribution system.

SIGNIFICANT EVENTS: No work was performed on this task during the reporting period.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 31-Jan-2003 14:49:38 EST [NAJ]*

Task Assignment 99-202-00
January 2003

MAGNETOSPHERIC MODELING AND ANALYSIS
GSFC ATR - Dr. S. Fung
Raytheon ITSS Task Leader - Dr. L. Tan
Raytheon ITSS Group Manager -

TASK OBJECTIVE: This task calls for (1) the performance of analysis supporting the development of a new generation of trapped radiation, (2) the documentation and analysis support in an ongoing SSDOO research program on the outer magnetosphere, and (3) ISTP campaign coordination.

SIGNIFICANT EVENTS:

- Mr. J. Gass will join this task for IT support and Web development. Various materials regarding work performed by the past summer intern on these aspects were sent to Mr. Gass for his evaluation and comment.
- Task staff prepared a prototype Website for accessing trapped particle data under given magnetospheric state conditions (now including Kp and the solar wind speed Vsw). The Website (http://rpi.gsfc.nasa.gov:8090/RB_model/") which is only available to the developers for now.

- Using this Website, task staff downloaded the trapped particle data in the extremely quiet magnetospheric state conditions (Kp<=1 and Vsw < 350 km/s). These data were then used to examine the "ground state" trapped particle environment for trapped radiation modeling.

UPCOMING MILESTONES/EVENTS:

- Task staff prepared three abstracts entitled "Characteristics of Quiet-Time Trapped Radiation Environment Deduced Under the Extremely Quiet Magneotospheric State Condition" (authors: S. F. Fung et al.), "Azimuthal Locations of Relativistic-Electron Injections Determined from Drift Echo Analysis" (authors: L. C. Tan et al.), and "Simulating the Transport of the Energetic Equatorial Particles to the Cusp Region from the Global MHD Simulation Outputs" (authors: X. Shao et al.) and submitted them to the EGS-AGU-EUG Joint Assembly 2003 to be held on April 6-11, 2003 in Nice, France.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
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Task Assignment 99-203-00
January 2003

SPACE SCIENCE VISUALIZATION FACILITY
GSFC ATR - Dr. R. Kessel
Raytheon ITSS Task Leader - J. Friedlander
Raytheon ITSS Group Manager -

TASK OBJECTIVE: The task of the Space Science Visualization Facility within the SSDOO is to support the SSDOO education and outreach activities, scientific analyses, and IMAGE mission activities. Members of the facility will need to work closely with the space science community in order to create appropriate space science videos, illustrations, and displays and to develop overall approaches and procedures for the maintenance of the task.

SIGNIFICANT EVENTS:

1. Staff attended meeting with SSD Director to plan updates for Black Hole talk. including completion of several Black Hole Simulations for Dr. Ormes

2. Staff held discussions to draft a list of equipment to be purchased using SSD technical funds, last years plans had to be drastically reduced due to a major budget cut. Research of equipment for current fiscal year included new 12x18 proof printer and mass storage.

4. Staff began training with Adobe After Effects software to further expand the labs software expertise. New video sequences were used in meeting with Dr. Ormes.

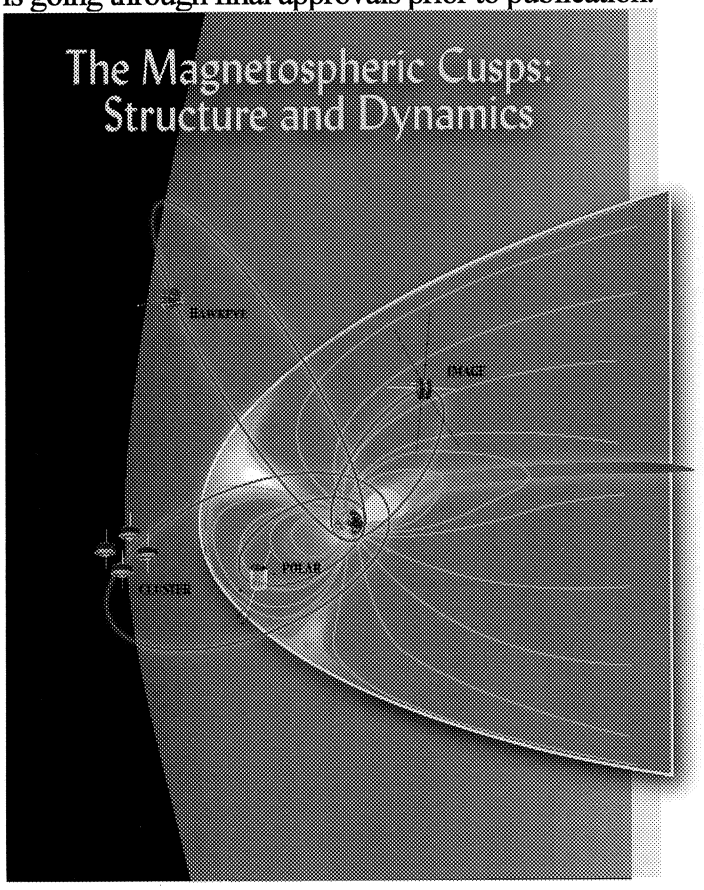
5. Staff illustrated ten figures for the Space Science Data Operations Office (SSDOO) Chief to be presented at an upcoming conference. Also illustrated seven figures for SSDOO personnel to be included in an upcoming publication entitled "Observations of Guided Echoes in the Magnetosphere by the Radio Plasma Imager (RPI) on the Imager for Magneto-to-Aurora Global Exploration (IMAGE) Satellite mission."

6. Reformatted and reconfigured 17 figures for the SSDOO Chief for an upcoming presentation. Continued work on this years SSDOO Overview. Collected all but three publications listings from SSDOO personnel. Compiled yearly charts for World Wide Web (WWW) Statistics and Anonymous FTP WWW hits. Created a first draft and submitted to SSDOO Chief for review.

7. Staff created several presents to honor Dr. Joe King in his retirement. A second caricature of departing National Space Science Data Center (NSSDC) Head was done for the party at the GSFC Recreation Center.

8. Staff created cover art for a new publication on Magnetospheric Cusps, edited by Dr. Shing Fung, the cover

is going through final approvals prior to publication.

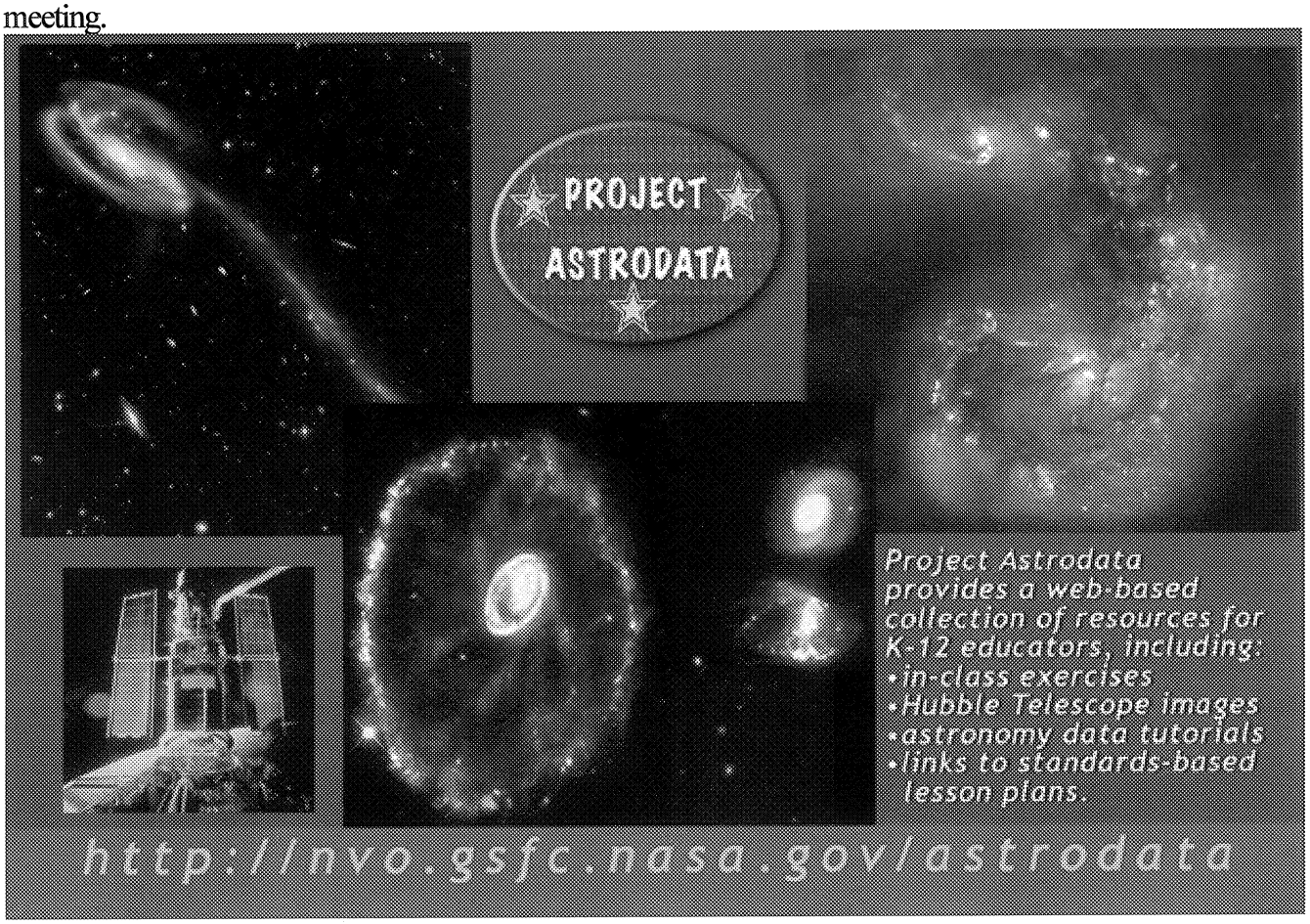


9. Staff completed several video variations of new IMAGE data to be used for a NASA Space Science update. Staff worked with producer Rachel Weintraub to complete sequences for a quick turnaround. Staff rendered and transfered frames to ACCOM unit for video recording, created specific 3-D animations and FCP movies.

10. Staff began work on this years SBIR/STTR new cover for a solicitations manual.

11. Staff completed work on Project Astro-Data postcard. Six thousand cards to be printed for upcoming

meeting.



12. Staff modifications to the Task Request system to support the Visualization Lab were completed and made available to task personnel for testing.

UPCOMING MILESTONES/EVENTS:

1. Staff will complete Sun earth connection sequence of events in October 2002 including SOHO, IMAGE, POLAR, and earth based data.

2. Staff will attend NASA EPO meeting at the Arecibo Observatory.

3. Staff will implement Task Request System.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 16:52:58 EST [NAJ]*

Task Assignment 99-204-00
January 2003

SPACE PHYSICS SOFTWARE DEVELOPMENT, SYSTEM MAINTENANCE, AND SPECIAL PROJECTS
GSFC ATR - Dr. R. McGuire
Raytheon ITSS Task Leader - T. Kovalick
Raytheon ITSS Group Manager -

TASK OBJECTIVE: The objectives of the space physics development task are to design, develop, document, support, and promote the re-engineering of the SSC Software Systems and the CDAW Graphics Systems. These software systems will support Satellite Situation Center (SSC) Operations, ISTP SPOF, SPDS, STEP, other NASA projects, and the space physics community in general. Accomplishing this objective requires maintenance of the software in both a UNIX and VMS environment, use of appropriate software development tools and methods, development of concise documentation, definition of new magnetospheric field and region models, and communication with scientists and end users both at the NSSDC and in the larger space physics community to ensure that their needs and requirements are being met. This task will work closely with the CDF/graphics task to fulfill its responsibilities. CRUSO in particular will play an important user support role for both SSC and the CDAW Graphics System. It will serve as the first point of contact for users, distribute documentation, answer simple questions, and forward software and science questions to this task and to SSC Operations.

SIGNIFICANT EVENTS:

1. Work on CDAWeb Software: Staff began working on the design work to support the CDAWeb "services" interface. Staff continued working with the IMAGE/RPI staff and further enhanced the plotting and listing capabilities for these datasets. Staff continued cleanup work on the CDFX suite of software and began work on some requested enhancements. Staff developed the software to implement a cdf merge/subset capability, the software is still being debugged and tested in the development environment. Staff discovered, and is in the process of fixing, a few problems with the plot_map_images software with regard to the Polar K1 VIS dataset. Staff continued investigating the geographic registration problem long suspected by staff and recently reported by a user of the Polar UVI/VIS image data.
2. CDAWeb Design work: No work was done in this area this month, due to other events.

3. Work on SSCWeb Software: Staff completed incorporating staff suggestions into the new calculator web interface and underlying software; the program will be available on the web in early February.

4. CDAWeb Statistics: The statistics include GSFC, RAL, ISAS and EDC: CDAWeb fulfilled 7,168 plotting requests, 4,018 ASCII listing requests and 226 CDF delivery requests, where each request can contain more than one plot/listing/file; (RAL: 16, 12, 2), (ISAS: 203, 12, 3) and (EDC: 18, 3, 2); there were 97,820 total accesses (13Gb; 50,729 CDFs and 12,000 gif files produced) to the CDAWeb HTTP Server. The anonymous ftp site delivered 21.7 Gb of data; 74,230 CDF files and 497 software/ document files to non-staff users. The "overall" ftp statistics file was updated and can be found at http://

cdaweb/cdaweb/logs/FTPaccumulative_record.html. The monthly web server and ftp statistics files can be found at http://cdaweb/cdaweb/logs.

5. SSC Statistics: Usage statistics from ubatuba, are as follows: There were 47 accesses of the SSC Version 3.0 Main Menu; Locator was executed four times; Query was executed once; the Data Base listing was not accessed; the Calculator was not accessed; the File Output option of the system was executed 49 times and the FTP option was executed 33 times.

6. Usage statistics for the Web-based versions of SSC Query and SSC Locator programs are as follows: The query_server was executed a total of 70 times; the tabular_server was executed a total of 1,397 times; the graphical_server was executed 1,120 times for a total of 2,587 accesses, excluding developers. In addition, the SPOF accessed the systems 17 times; SSC Operations staff accessed the systems 19 times. The SSC Web pages (main page as well as any GIF, user's guide, etc.) were accessed 10,394 times, with 62 accesses by SPOF staff and 108 accesses by SSC Operations staff. The new TIPSOD application was accessed 530 times with 1,179 accesses to the database.
7. Mirror Sites: RAL, ISAS and EDC are retrieving their provided data and software updates on a regular basis through their FTP accounts. Usage statistics were received from RAL, ISAS and EDC this month; these numbers were incorporated into the CDAWeb statistics listed above. An initial email message was sent to the Brazilian scientists who are interested in hosting a mirror site.
8. Ingest/operational activities: The CDAWeb metadata generator and inventory plot generation software are being executed nightly. As part of this process, any new MAP, IMAGE, LANL, GOES, ACE, FAST, Polar, ISIS, Cluster and PWG (the new Polar/Wind/Geotail replacement for the CDHF) files are being "ingested" as well. In addition, the master cdf "notes" web pages were updated each week.

9. SPDAC support: Staff continued working on requested enhancements to the database and associated web interface to meet a new, Living with a Star, call for data.

UPCOMING MILESTONES/EVENTS:

1. A new RAID disk tower for the rumba machine is expected soon; plans are being made for its optimal configuration.

2. Staff will assist the ATR with providing documentation and the appropriate level of information to help define meaningful assignments for a new co-op. student.

3. Staff will continue to work with the IMAGE project personnel to validate the CDAWeb displays of the IMAGE data.

4. Staff will continue testing and maintenance on CDAWeb and testing/enhancing all of the plotting and listing software.

5. Staff will continue testing, modifying, and documenting the CDAWlib software and associated Web pages.

6. Staff will continue testing and maintenance of the SSCWEb system.

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Task Assignment 99-205-00
January 2003

SPACE PHYSICS DATA ACQUISITION AND VALUE-ADDED SERVICES
GSFC ATR - Dr. R. McGuire
Raytheon ITSS Task Leader - Dr. H. Hills
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: The objectives of this task are four-fold: 1. to support space physics and information acquisition for NSSDC, including support for ingest to the near-line/on-line archive and/or for distribution as CD-ROMs; 2. to support value-added space physics services, including operation of the SSC, creation of new composite space physics data/model products, definition of science user requirements for SSDOO systems and other NSSDC data and information systems, and science-expert support for other efforts such as IACG and SPDS as appropriate; 3. to carry out selected archival research and mission planning activities, including publication of results; and 4. to provide logistics support as directed for working meetings related to SPDS, including travel reimbursement.

SIGNIFICANT EVENTS:

1. DIONAS INGEST:

   a. ISIS: Data inflow remains stopped.

   b. SAMPEX: All six usual datasets from SAMPEX were routinely ingested into NSSDCFTP or CDAWeb successfully; routine sample checks showed no flaws.

   c. Wind/WAVES: The PS files from Wind/Waves are being brought up to date, after the problem of non-readable files was fixed. The files in nssdcftp are now readable and printable. The other datasets (a CDF in three wavelength bands, and a GIF) were also ingested successfully.

2. OTHER DATA INGEST:

   a. Re-ingest of Ulysses URAP data into the archive and NSSDCFTP was completed for the entire mission for ten datatypes by the operations staff. The Ulysses acquisition scientist checked the on-line data after ingest completion.

   b. Voyager cosmic ray data were updated for January 2003 to June 2003.

   c. New software files related to the ISIS topside sounder data were loaded onto nssdcftp and one requester was assisted in using the files.

3. Data Set Contacts:

   met with Dr. R. McEntire (JHU/APL) and D. Williams. McEntire is interested in providing high-

resolution energetic particle data to NSSDC but emphasized that, to be useful, these need to be wrapped in appropriate software. In particular, they are now porting all previous ISEE, AMPTE, and Geotail data sets from Vax machines to a Unix environment (AMPTE completed; Geotail in progress; current focus is on Galileo). Their data analysis software is being incorporated into a new tool called the "Mission-Independent Data Layer" (MIDL). This MIDL tool, now in beta-testing, will be essentially final by mid-2003. When MIDL goes beyond this beta-test phase, we should approach APL about our deep archive support.

b. McEntire approved NSSDC ingest of the Regime Identification Data (RID) set created by and Christon, subject to approval by L. Frank (Iowa) and Kokubun (Japan) for plasma and field data inputs, respectively. Email requests for such approval will be sent next week. Further, we will soon contact Frank for approval to obtain, for NSSDC ingest, the APL copy of his 4-hour color spectra plots of plasma data for Geotail, which were used as a key input for creating the RID.

c. Archiving of flux spectrum data from the Voyager plasma experiments was discussed with the Principal Investigator, J. R. Richardson (MIT).

d. Task staff reviewed on-line accessibility of Wind and SOHO data from experiment team sites for potential ingest. The Wind/SWE and SOHO/ERNE sites have good quality data not yet archived at NSSDC.

e. The acqsci had a long meeting with Brian Dennis of RHESSI. He acquired a first-hand knowledge of the ongoing FITS file generation. The acqsci invited Dennis to check out or modify the changes in SPDAC. The acqsci was given an account in their machine hesperia.gsfc.nasa.gov. However, after a week of efforts from both ends, this account remains unusable, though the login is approved. The idea is to become familiar with the FITS files and the software well before the data arrives at nssdc. Dennis also was interested in NSSDC cohosting the past data from RHESSI. He was concerned that the data in his machine could get automatically corrupted if the Berkeley or Swiss machine had problems. R. McGuire will decide on this archival.

f. A CDROM containing VLF digital data was received (at last) from U.Iowa. It carries sample data, formats, and software. It is being checked out before more CDROMs are made in Iowa.

g. Archiving issues related to TIMED and FAST were discussed with the responsible project personnel and SPDF management.

h. The archiving of TIMED data was discussed with Stu Nylund (APL) by phone and e-mail. NSSDC is responsible for archiving all TIMED data after the conclusion of the mission. One TIMED CoI (L. Paxton, APL) is interested in using CDAWeb, which would require conversion of the netCDF files to ISTP-compliant CDF files. Metadata population is unfortunately quite irregular for the TIMED data sets.

i. Polar HYDRA CDFs (po_h0_hyd)
Data CDFs were received from the PI group. An initial correction to the master enabled plotting data despite an incorrectly-structured CDF. CDFs were renamed to convention and put into the CDAWeb test database. Several later updates and improvements were made to the master. A staff scientist generated a detailed message discussing the changes, and e-mailed it to J. Sartain (Iowa), the data provider. In the latest revision, plots seem okay after correction of the electron and ion labels, and the scale limits seem to be properly determined by SCALEMIN/MAX. The URL also appears on the variable-selection page. Awaiting response from data provider on suitability of scales, and on additional information with respect to directionality of the fluxes.

4. ISIS software

New software files were obtained from Bob Benson for a revised version of the tracing and inversion program for ISIS ionograms. R. Daniell (CPI, Boston) and G. James (CRC, Canada) were assisted in retrieving and using the new software.

5. Support for Dionas Ingest

Support was provided for "cleanup" changes to listfile generator software.

6. SPDAC SUPPORT

Continued to make minor changes in the SPDAC software, as problems were found or editorial changes desired. Various staff members made new and update entries into the SPDAC database, for numerous s/c and experiments

7. Maintenance of NSSDC Information Databases:

a. Several JGR and GRL journals were reviewed and keyworded for TRF.

b. The ISEE home page and supplemental file on the nssdc web server were updated.

c. Corrected the Common Name from "TWINS-1"to "TWINS 1", to conform to our policy, and to match the format of TWINS-2, which has Common Name = "TWINS 2".

d. Made significant inputs into the Genesis mission page in SPDAC, from NMC. D. Williams had been agent, and prepared the existing NMC information, although it isn't a planetary mission. Now J. Cooper has started data-acquisition discussions, and has been designated the agent.

e. Changed all 10 Ulysses (urap) year entries in Dionas_ingest database (19YY or 20YY), to enable ingest of data from the appropriate century. Made numerous other updates and changes to the database.

f. Found and reported a problem in NMC, involving incorrect request to database for certain data sets with old ID indicating experiment -00.

g. Made changes to short names for the IMP8 15-second mag data sets, and asked B. Anderson to make similar changes for the four fullnames. These make clear the version change, and superseding of the old data set. Asked her to also check for compliance with our capitalization practice.

h. Generated new-entry information and s/c BDs for several s/c that are in the SPDAC "Future" table: 1. C/NOFS (on which will be CINDI exp.); 2. SDO -- Solar Dynamics Observatory; 3. AIM -- Aeronomy of Ice in the Mesosphere; 4. Solar-B -- follow-on to Solar-A = Yohkoh. We know of the experiments on these, but haven't made entries for them yet. Will make entry for CINDI in JSPAG, but leave the others as is for now.

8. SSC Ephemeris

a. Ephemeris information was created and updated into the SSC's UNIX data base for 31 spacecraft. Files for four spacecraft were updated for the [ACTIVE.IACG.ELEMENTS] directory.

b. SSC operations continued normally. It was noticed that even though DMSP-F15 ephemeris was ongoingly being updated, it did not show up in SSCWeb; the updates in Wharfrat/Ubatuba were not visible in SSCWeb. It was fixed after a Berkeley user spotted the inaccessibility.

9. The draft and final versions of SPX 590 were made available via WWW and FTP. SPX 591 was drafted and loaded online. It carries stories on seven spacecraft. As usual, a copy of that was emailed to COSPAR. Six WDC SI announcements (including one revision) regarding the launch and assignment of IDs to seven missions were sent by e-mail and posted to the Usenet News. Five CCSDS IDs were assigned for future mission/simulation telecommunications. Three relinquishments of IDs were also entered. The list of e-mails used to announce the availability of SPACEWARN was cleaned up again, dropping several dozen bad addresses. Current number of subscribers: 864.

10. MAINTENANCE AND UPDATING ON THE VARIOUS WWW PAGES:

a. ModelsWeb
   1. ModelWeb statistics for year 2002 were obtained.

   2. The IRI Web interface was corrected and updated to the IRI-2001 version.

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Accesses for this month:
   CGM ..........................................  715
   IRI model ..................................... 1666
   MSIS model ..................................... 2045
   IGRF model ..................................... 677
   TRAP particle model ..... 150
   T89 model ..................................... 13287
   T96 model ..................................... 48
   Heliospheric Ephemerides 869
   IMP-8 daily position ..... 32
```

c. COHOWEB and OMNIWEB systems (data and software)
   1. Updated COHOweb with new plasma and mag data from Ulysses.
   2. Built OMNIWEB and COHOWeb statistics for year 2002.
   3. Edited omni_source home page, adding link to solar data.

   Accesses for OMNIWEB: plots/list/scatter: 21140 / 999 / 56 = 3195
   Accesses for COHOWEB: plots/list: 93 / 17 = 110

d. ATMOWEB system and FTPHelper (graphical browsing & retrieve FTP data)
   1. Validated 2-min. plasma LANL data: (convert to F-format, remove time reversal, spikes, etc.) and downloaded them to FTP site.
   2. Built LANL hourly data files for FTP site,
   3. Built new merge LANL/MIT data files for years 2000-2001
   4. Built new merge LANL/MIT/WIND/ACE data files for 2000-2001

   FTPBrowsing accesses for this month (plotting/listing): = 582 / 284 = 866 ATMOWeb accesses for this month (plotting/listing): / =

e. Bowshock Data Base/Interface 1. Reprocessed IMP-8 bowshock interface, software, home pages, data, etc. to make it more generic.

11. Meetings, Presentations, and Publications

a. A task scientist compiled a model for proton flux spectra at 1 eV to 10 GeV from the Voyager plasma and cosmic ray experiments in collaboration with J. R. Richardson (MIT) and E. R. Christian (NASA Headquarters) for a publication in progress on irradiation of comets in the outer solar system.

b. A paper was reviewed for Annales Geophysicae.

c. The plans and agenda for a session on data assimilation and data-based models during the AGU/EGS Spring meeting were finalized with co-convenors R. Schunk, L. Scherliess, and V. Papitashvili.

REQUEST HIGHLIGHTS:

a. Several requester were assisted with inquiries regarding ITM data and models.

b. Resonded to requests about solar coronal magnetic fields, and about solar flare catalog lists and magnetic reconnection data.

c. Responded to a requester wanting the surface velocity of the earth (to 4 places) at Moorhead, Minnesota. (apparently a student; gave comments, hints, and only an approximate answer.)

d. Responded same day to a request relative to OMNI data.

e. Received request for a Beta version of Yohkoh x-ray movie of rotating sun. We have only VHS (but could convert). Located information about sources, and a web site that lets user generate their own solar movie sequence and then download it.

ACTIVITY LOG:

The NSSDC models sites on anonymous ftp and on the Web continue to be very popular:

ftpWWW

2002	RAID	Model	atm	geom	ion	rad	solar	CGM	IRI	MSIS	IGRF	TRAP	hpage
Jan	154622	4926	968	819	2377	324	273	1505	3399	8270	454	244	69610
Feb	116199	7092	1078	659	3651	619	525	1106	2322	41633	475	621	71078
Mar	164875	10177	1869	1462	4682	640	740	717	1659	5257	528	161	73074
Apr	245162	6863	1134	884	3665	353	319	899	2220	1162	1266	122	74803
May	275487	4426	754	537	2208	305	261	1050	8238	944	1346	93	76584
Jun	133327	6892	891	709	3693	388	371	47412641		1055	702	84	78218

	ALL	Model	atm	geom	ion	rad	sol	IRI	MSIS	CGM	IGRF	TRM
Jul	230906	8669	1559	993	4133	538	499	645	4486	570	491	42
Aug	229827	6819	1234	934	2869	521	485	701	1953	983	510	65
Sep	184116	10238	2034	1123	4441	691	754	587	1832	811	449	543
Oct	252019	8551	1664	1209	3327	744	609	996	4055	1075	917	330
Nov	247324	9864	2019	1221	4213	577	777	6439	1573	1382	717	466
Dec	304514	10440	1882	1131	4707	770	711	1281	1801	1127	549	250
2003	ALL	Model	atm	geom	ion	rad	sol	IRI	MSIS	CGM	IGRF	TRM
JAN	262332	8413	1856	913	3524	582	715	1666	2045	715	677	150

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-------- ISIS ------------

	Files	GBy	Total	WWW	I	AE	Aer	DE	Exp	Hi	I/A	OGO	SM	SNOE
Jan	26,410	15.1	531.6	5640	I1396	43154	11	44	13	47379	29035			

```
Feb 10,342  6.1 537.7 5736 I  25  5 371  3 22 836  8 29  4176
Mar 20,492 12.0 549.7 5917 I 179 18  48 99 83  78 27 17 14263
Apr 17,460  9.2 558.9 6057 I  50    215 15  5  22  1  5 16365
May 19,126 15.4 574.3 6257 I  52  9 271K34 30  15 19 213    2


------ ISIS -----------

     Files  GBy  Total I    ITM TOPIST        ATMOWeb
-----------------------------------------------------------------
Jun 16,552  9.5 583.8  I  1,954      0
Jul 17,192 14.9 598.7  I  1,908 65,255
Aug 21,077 12.3 611.0  I  2,594 58,241
Sep 15,419  8.3 619.3  I  1,805    928
Oct 21,969 10.1 629.4  I 32,249 16,586  DE2/LAPI:11371, ISIS:19950
Nov  1,612  0.9 630.3  I  4,704      4  AE:3003 DE:993 ISIS:574
Dec      0    0 630.3  I
Oct 21,969 10.1 629.4  I 32,249 16,586  DE2/LAPI:11371, ISIS:19950
Nov  1,612  0.9 630.3  I  4,704      4  AE:3003 DE:993 ISIS:574
Dec      0    0 630.3  I 18,326      2  AE:18088
Jan      0    0 630.0  I  2,232      0  DE:1826
-----------------------------------------------------------------
ITM: AE-C,D,E, Aeros, Alouette, ISIS, DE-1,2, Explorer 22, 31,32,
Hinotori, SNOE, OGO-6, SanMarco
=================================================================
```

WWW file and plot accesses during December 2002 (and the yearly totals) for interplanetary COHO-related data from COHOWeb, CDAWeb, and NSSDCFTP: Deep Space (Ulysses, Voyager, Pioneer, etc.): 776 {2002 Total: 58,047} Geospace (IMP-8, Prognoz, ACE, WIND, SOHO): 23,629 {2002 Total: 308,663}

UPCOMING EVENTS: A task scientist will give an invited talk on heliospheric interactions with comets in the outer solar system at a meeting in Chile March 10-14, 2003.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 11:12:29 EST [NAJ]*

Task Assignment 99-301-00
January 2003

COMPUTER SYSTEMS MANAGEMENT TASK
GSFC ATR - C. Barrett
Raytheon ITSS Task Leader - J. Jacobi
Raytheon ITSS Group Manager -

TASK OBJECTIVE: The objectives of this task are to provide systems analysis and technical support to the operational computer activities of the NSSDC; to maintain existing hardware and system-level software to ensure the optimal performance and utilization of its resources and connectivity to its computing sites; to integrate new hardware and system-level software into existing systems to achieve upgraded capabilities and state-of-the-art facilities; to administer specialized software such as data base and optical disk management systems; and to provide users with the necessary documentation, training, and assistance so that NCF resources are fully utilized.

SIGNIFICANT EVENTS:

- Staff tested all server password files for use of weak or poorly choosen passwords.

- Staff upgraded Backup Express to version 2.1.5C on all clients and the server. Worked with Syncsort on resolving restore failures in Backup Express. Moved the tape library system from ubatuba to rumba. It wouldn't back up or restore so it has been moved back to ubatuba.

- Staff determined that a multi-IO SCSI interface card on rumba was defective, and had a replacement installed. Worked with RSI to obtain a new IDL license file that coresponds with the new IO card, and distributed it to all who needed it.

- Staff rehosted the ISTP events data ingestion server. This was hosted on a MAC Power PC running PPC Linux. Since PPC Linux is no longer supported, and security flaws were recently found relating to that OS distribution, the entire system was rehosted to a PC running RedHat Linix 8.0.

- Staff replaced wu-ftpd on voycrs, and rosette so it is anonymous only and prevents users from accidentally sending their password.

- Staff reconfigured tripwire on all Unix servers to maintain a historical record of system configuration information and to e-mail appropriate systems administration staff when this changes.

- Staff assisted D. Leisawitz work through an e-mail problem. He was unable to delete e-mails messages using dtmail. Fixing the problem involved copying the messages to mail630, teaching him to use mutt to delete the messages, and copying the messages back to rosette.

- Staff continued to perform routine system administrative duties, including backups, application of confusing software upgrades and patches, providing assistance to users, and maintaining the IP spreadsheets and equipment database.

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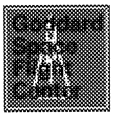
 NASA home page  GSFC home page  GSFC organizational page

Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Monday, 10-Feb-2003 11:50:33 EST [NAJ]*

Task Assignment 99-302-00
January 2003

SYSTEMS NETWORKING AND SMALL SYSTEMS
GSFC ATR - G. Goucher
Raytheon ITSS Task Leader - R. Dunlap
Raytheon ITSS Group Manager -

TASK OBJECTIVE: The objective of this task is to provide network engineering support to Code 600.

SIGNIFICANT EVENTS:

- Staff reviewed the GSFC Wireless Network Requirements document.
- Staff maintained and activated ports on building 26 switches.
- Staff continues work to develop the Code 630 Web-based equipment data base.

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Curator: *Natalie Jaquith*
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Task Assignment 99-303-00
January 2003

NSSDC COMMON DATA FORMAT (CDF)
GSFC ATR - D. Han
Raytheon ITSS Task Leader - M. Liu
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: The objectives of this task are to carry out computer science research, develop computer software and provide user support for the NSSDC Common Data Format (CDF).

SIGNIFICANT EVENTS:

1. The commercial product packaging software from Installer VISE had been evaluated on Windows 98/NT/ XP as well as Mac OS 9/X. It appears to suit our need for the CDF distribution. Other approaches were also tested for Mac OS X to facilitate the installation process.

2. The CDF Java-based tool program was further enhanced.

3. The Java-based CDF data merging program that combines the master CDF with the regular CDF is being tested by the CDAWeb project team.

4. Only one user question was handled this month.

CONCERNS AND PROBLEM AREAS:

1. The GZIP compression/decompression option is turned off for 16-bit DOS/Windows 3.x due to its memory constraint.

2. A unusual problem occurs with the older Microsoft C 7.00 compiler in one of the EPOCH parsing routines on DOS/Windows 3.x. It occurs while using the floating point functions and type casting. It is suspected that the Microsoft executables may be getting too large and will require memory overlaying.

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Curator: *Natalie Jaquith*
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Task Assignment 99-304-00
January 2003

PLES
GSFC ATR - N. James
Raytheon ITSS Task Leader - Dr. D. Williams
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: The objectives of this task are to maintain data bases and metadata (NMC, WWW) for planetary, Earth sciences, and selected astrophysics data (HEASARC, EUVE, HST), provide request support and coordinate updates of user interfaces, coordinate WWW activities, support internal and external data base users, assure data set quality, coordinate planetary data acquisition and Earth science data transition, support educational activities, and coordinate publications.

SIGNIFICANT EVENTS:

- The NSSDC WWW server had a total of 13,240,687 error-free accesses logged for January 2003, an increase of 49% compared to December 2002. A loss of server logs for nearly six days in December 2002 is estimated to account for 20% of this increase.

- Task staff responded to more than 180 e-mail queries and telephone calls from external users and the Request Office.

- Task member opened spacecraft records for the twin Mars Exploration Rovers and updated the spacecraft record for Rosetta and the information on the Near Earth Asteroid Prospector (NEAP).

- Task personnel opened data sets for the Viking Labelled Release Data Archive and the NEAR Multispectral Imager level 2 and level 3 data, and updated the NIMS EDR data set.

- Task staff updated all footers on the Image Catalog pages to reflect the new acting head of NSSDC.

- Task member made modifications to the statistics pages.

- Task personnel updated the fact sheet information on planetary satellite orbital data.

- Task staff continued work on material for the IMPACT educational Web pages.

- Task member was interviewed for a French television documentary on future commercial lunar missions.

- Task personnel added links in the Image Catalog to all Apollo high-resolution images on the FTP site.

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Task Assignment 99-305-00
January 2003

NASA SCIENCE OFFICE OF STANDARDS AND TECHNOLOGY (NOST)
GSFC ATR - D. Sawyer
Raytheon ITSS Task Leader - J. Garrett
Raytheon ITSS Group Manager

TASK OBJECTIVE: The objective of this task is to maintain and expand the NOST so that it can effectively respond to the standards needs of the NSSDC community.

SIGNIFICANT EVENTS:

NOST Archiving Tools Suite - Staff has

- Continued coding the first version of the Multifile Package Group Analyzer (MPGA) tape packaging software. The first version of the Module Library is complete. Mapped out the functionality of the By Directory Module and the Templates Library.
- Participated in both general and detailed meetings regarding the upcoming tape migrations. Discussions at the general meetings centered on work flows, schedules and outstanding issues. Discussion centered on determining needed attributes and sources of the attributes. Also held internal meetings discussing design, features, and status of software.
- Met to discuss content required to be included in data description registrations for the migration effort. A variety of processes and interfaces to be used to submit the registration information and obtain registration numbers back were discussed.

ISO Data Archiving - Staff has

- Updating the ISO Archiving Web site with some few new materials.

CCSDS On-Line Information System -

- The follow on subcontract to GST for CCSDS Web Site Support for December 2002 to October 2003 has been completed. Work is now underway supporting the Docushare Document Management System and supporting updates to the Web site for the upcoming set of spring meetings for CCSDS.

CCSDS Standards - Staff has

- Reviewed the CCSDS Reorganization Proposal and provided preliminary feedback of impressions of the proposal.
- Provided PVL versions of messages shown in the examples in the *Orbit Data Messages* document. Since then two new versions of the document have been produced without including the PVL. The new documents are being reviewed to determine how to proceed.

Goddard Technical Standards Coordination - Staff has

- Participated in the GSFC Standards Coordination Working Group meeting.
- Updated the Web site to detail a number of completed and upcoming GSFC reviews of standards.
- Scripts have been set up to redirect HTTP access to CCSDS.ORG (domain name without any additional host name). If the top level CCSDS.ORG page was accessed, redirection is to the top level page at the new site at WWW.CCSDS.ORG. Due to different layouts, any attempted access to CCSDS.ORG not at the top level page, will result in message informing users of the www.ccsds.org site, but will redirect actual access to the corresponding page at WWWCLASSIC.CCSDS.ORG

STATISTICS: CAOIS: As of 31 January 2003, there were 442 Data Description registration numbers assigned. Of these about 30 of the Data Description registration numbers are reserved for NSSDC use during the Cygnet migration, 45 are reserved for IMAGE ingest, 26 for ISIS ingest, and 2 for Skylab. Data Description Packages for these must be generated.

UPCOMING MILESTONES/EVENTS:

NOST Archiving Tool Suite: Staff will

- Complete coding the first version of the Multifile Package Group Analyzer (MPGA) tape packaging software. This includes coding the main parts of the "VMS-By-Directory", "AIP-Generator", and "VMS-File Getter" Modules.
- Begin coding the multi-file version of the AIP Extractor.
- Continue to participate in tape migration meetings.
- Continue discussions on data description registration processing.

CCSDS XML Group: Staff will

- Continue low level of support for possible CCSDS XML prototype effort.
- Participate in upcoming joint CCSDS and OMG meeting, when convenient.
- Assist as needed in presentations for Metadata Registries Open Forum.

CCSDS Standards: Staff will

- Continue review of the CCSDS Reorganization Proposal and provide formal comments as part of the GSFC response.
- Review the two new drafts of the Orbit Data Messages standard and propose updates using PVL and XML for the syntax.

Goddard Technical Standards Participation: Staff will

- Participate as needed in the GSFC Standards Working Group, the NASA Data System Standards Council and the GSFC Standards Review Boards.
- Continue updates for the Web site for GSFC Standards Coordination. Update Web site to reflect updated standards management.

CAOIS: Staff will

- Register new data description packages as they are submitted. Note that Cygnet migration, IMAGE ingest, ISIS ingest, and Skylab descriptions still need to be submitted.

Formats Evolution Process - Staff will

- Update the FEP Web site if any new material is submitted.

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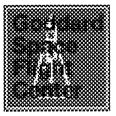
 NASA home page  GSFC home page  GSFC organizational page

Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 14:51:44 EST [NAJ]*

Task Assignment 99-306-00
January 2003

INFORMATION (METADATA) SYSTEMS DEVELOPMENT AND UPGRADES
GSFC ATR - Dr. J. Thieman
Raytheon ITSS Task Leader -
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: The objectives of this task are to define and develop information systems and the interfaces thereto, maintain these systems and interfaces and support the generation of reports therefrom, and recommend and participate in the planning of upgrades to necessary support systems and software as appropriate.

SIGNIFICANT EVENTS:

- A design review of the sign-in/-out process for JIN was held with operations personnel.
- A new beta version of the JIN software (0.3.1b) was released for evaluation and comment by operations personnel.
- Staff addressed the comments and concerns of the operations staff in the beta release of JIN, primarily by making software fixes.
- Collaboration and class diagrams were created for the JIN sign-in/-out processes.
- A bug fix was made to the Filex application and a new version of the report was run for P. Ross (QSS).
- Task staff reviewed a variety of visual design issues with JIN both internally and in consultation with L. Persichitti (Raytheon ITSS).
- Provided a revised schedule of task activities to the CCB.
- Generated a listing of space and solar physics missions and launch dates for C. Ng (Raytheon ITSS).
- Staff made fixes to the AIM and SDO records in NIMS for K. Hills (QSS).
- Requested that systems task personnel install the Oracle connection manager software on the NSSDC web server machine.

UPCOMING MILESTONES/EVENTS:

- Work will continue on JIN.

- An upgraded version of the Task Request system will be implemented.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Tuesday, 04-Feb-2003 15:52:51 EST [NAJ]*

Task Assignment 99-307-00
January 2003

SUN-EARTH CONNECTION EDUCATION FORUM (SECEF)
GSFC ATR - Dr. J. Thieman
Raytheon ITSS Task Leader - Dr. S. Odenwald
Raytheon ITSS Group Manager - L. Mayo

TASK OBJECTIVE: The objective of this task is to provide administrative support of the SECEF managers and assistance in preparing for educational outreach events, seek opportunities to leverage SECEF activities for broad national impact, and assist in publicity for the SECEF by developing content for a Web site and publications.

SIGNIFICANT EVENTS:

- Staff is planning for 2004 Venus Transit. Draft events and programs planning document.
- Staff worked on the development of script for NASA/CONNECT Northern Lights program in Norway.
- Staff attended oordination meeting with Management for Venus Transit 2004.
- Staff worked on the Venus Transit Sunspotter guide draft.
- Staff attended the SECEF bicoastal meeting in Pasadena, California.
- Staff is preparing for Sun_Earth Day February 11, 2003 P2K event.
- Staff is preparing for Student Observation Network workshop on February 11, 2003.

UPCOMING MILESTONES/EVENTS:

- Staff will continue with execution of the 2003 Sun-Earth Day.
- Staff will continue with planning for Venus Transit 2004.
- Staff will ontinue with scheduled EPC meetings.

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Task Assignment 99-312-00
January 2003

ANALYSIS SUPPORT FOR THE IMAGE MISSION
GSFC ATR - Dr. J. Green
Raytheon ITSS Task Leader - L. Garcia
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: The objectives of the Analysis support for the IMAGE Mission task are to maintain and update local copies of the IMAGE software suite, create RPI data analysis software, and to create software to be used in correlative studies between IMAGE detectors and between IMAGE and other missions. This task will also support the synthesis of data and theory in the study of Earth's magnetosphere through creation of unique data products and services. This task will make available appropriate documentation for all of these objectives and will support the IMAGE Science Center Web site.

SIGNIFICANT EVENTS:

- Staff posted 17 new abstracts and two new documents to the IMAGE publications Website.
- Staff added 22 new references to the posted reference list on the IMAGE Science Center Website, updated one reference, one abstract, and one document.
- Staff added an IMAGE press release item on a "Science News" article.
- Staff added daily spectrograms for the RPI instrument for December 2002 to the IMAGE Science Center site.
- Staff updated the IMAGE Science Center meetings page with the January 2003 EUV and RPI team meetings and an agenda for the RPI meeting.
- Staff created new UDF archive for the IMAGE UDF server. This new server contains UDFs of geosolar indices including Kp, Dst and Ae. Discussed changes with C. Gurgiolo and B. Lawson and made changes to the archive based on their recommendations. Documented these changes to the archive for future reference. Tested this server through the UDF client software.
- Staff sent ASCII output of RPI dynamic spectrogram data to a scientist in Code 690.
- Staff began modifications to manuscript intended for publication to Journal of Geophysical Research based on recommendations of co-authors and reviewers.
- Staff updated IMAGE analysis software packages BinBrowser and euv_imtool.
- Staff discussed modifications to IMAGE RPI plasmagrams generated through CDAWeb with T. Kovalick.

These discussions have led to changes in plotting options available to scientists making use of this resource. Initiated discussion with science staff on further changes to the Web interface and plotting options.

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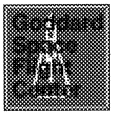
 NASA home page  GSFC home page  GSFC organizational page

Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Friday, 21-Feb-2003 14:59:09 EST [NAJ]*

Task Assignment 99-313-00
January 2003

COMMUNITY COORDINATED MODELING CENTER
GSFC ATR - Dr. M. Hesse
Raytheon ITSS Task Leader - M. Kuznetsova
Raytheon ITSS Group Manager - T. Kovalick

TASK OBJECTIVE: This task will provide science and software support for Community Coordinated Modeling Center (CCMC). Specific support includes developing and testing of simulation codes for space weather models, performing simulations of realistic space weather events, providing visualization and analysis software, performing comparison of modeling results to satellite measurements, performing research in space plasma physics.

SIGNIFICANT EVENTS:

- Web visualization for 3D data from CTIP runs fully integrated in one interface script with other 3D data (from M.C. Fok ring current, magnetospheric MHD models).

- All ring current output recast into equatorial plane/energy level space now fully accessible through 3D-data interface.

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Curator: *Natalie Jaquith*
Responsible Official: *Dr. Joseph H. King, Code 633*
Last Revised: *Wednesday, 12-Feb-2003 09:43:57 EST [NAJ]*